

RESPONSE TO COMMENTS

TENTATIVE ORDER NO. R9-2003-0111:

**GENERAL WASTE DISCHARGE REQUIREMENTS FOR
DISCHARGES OF TREATED GROUNDWATER FROM VOLATILE
ORGANIC COMPOUND CLEANUP SITES TO LAND IN THE SAN DIEGO REGION**

May 28, 2003

RESPONSE TO COMMENTS ON TENTATIVE ORDER NO. R9-2003-0111

Comments on Tentative Order No. R9-2003-0111 were received from Regional Board staff, the County of San Diego Department of Environmental Health, and LFR Levine Fricke. In some instances the comments in this document have been paraphrased for brevity or clarity. The comments are listed in this document in the order of the sections of the Tentative Order and attachments (document) to which the comments refer. For example, the first comment listed below is on Finding 1 of the tentative Order. Following the comments on the tentative Order are comments on Attachments A through D respectively. The commentor is also listed.

Document: Order, Finding 1

Commentor: David Felix, San Diego County Department Of Environmental Health

Comment 1: Item 1

There are not 1200 cleanups going on in the county.

Response: That may be true for San Diego County. However, for Region 9 which includes portions of Orange County, and Riverside County, Geotracker shows that there are a little less than 1200 open groundwater cleanup cases. These cases include SLIC cases as well as UST cases.

Document: Order, Finding 3

Commentor: David Felix, San Diego County Department Of Environmental Health

Comment 2: "840" seems high for the estimated number of pump and treat systems going on in the Region.

Response: The "840" number is an estimate based on staff's professional experience. A lower number seems reasonable, especially in light of the fact that all of the cleanup cases are not in the active cleanup phase at this time. However, of the cases where active cleanup is going on, most of the sites under oversight of the Regional Board pump and treat some groundwater either to dewater the aquifer for better soil-vapor extraction, or as part of a dual phase system. The number will be adjusted downward.

Document: Order, Finding 15

Commentor: David Felix, San Diego County Department Of Environmental Health

Comment 3: Attachment A

All the "Threat to Water Quality" category criteria mention degradation or impairment. How can this apply when quality is improved?

Response: The "Threat to Water Quality" category is in reference to the water quality of receiving groundwater, not treated groundwater. While the quality of the treated groundwater is improved, that may not be the case for the receiving groundwater.

Document: Order, Finding 15

Commentor: John Anderson, San Diego Regional Water Quality Control Board

Comment 4: Finding #15 states that this is a category "3B" discharge. I noticed that in Attachment A the TTWQ is listed in the table in roman numerals and in arabic numbers in the descriptions. Shouldn't these be consistent? Although if Attachment A is from the State Board (and I think it is) then the SB is inconsistent with their nomenclature.

Response: In order to stay consistent with the table listed in Title 23 of the California Code of Regulations, we will reference this category as IIIB.

Document: Order, Directive A2

Commentor: David Felix, San Diego County Department Of Environmental Health

Comment 5: What is the definition of an affected groundwater management entity? What is the definition of an affected public water system? What about affected private well(s)?

Response: An affected groundwater management entity includes any person who pumps, uses, manages, distributes or has any other interest in the quality of water in a water body affected by discharges of waste regulated under this tentative Order.

A public water system is a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year (Health and Safety Code section 11627(h)). An affected public water system is one within whose area a treated groundwater disposal project regulated by the proposed WDRs is located.

Water Code section 13304.1 does not pertain to, private wells owners. However, notifying private well owners of a nearby disposal project seems prudent. A directive has been added to the WDRs requiring the discharger to provide notice of the disposal project

to private well owners who own a well within 1000 feet of the proposed discharge point. Proof of notification must be submitted to the Regional Board along with a Report of Waste Discharge (ROWD) required in Directive A.4

Document: Order, Directive A4(a)(i)

Commentor: John Anderson, San Diego Regional Water Quality Control Board

Comment 6: Directive A4(a)(i).

In order to help define the term "similar", I suggest modifying this sentence by adding the following after similar . . ."in concentration and composition . . .".

Response: "... in concentration." will be incorporated in the tentative Order. However, we will not add "... in composition" because it is not necessary in describing the various constituents.

Document: Order, Directive A5

Commentor: David Felix, San Diego County Department Of Environmental Health

Comment 7: How can you charge a fee, or issue a permit or waiver, for something that IMPROVES groundwater quality? I think this is contrary to the mandate given to the water boards.

Response: The fees charged to regulated dischargers for WDRs are required by the California Code of Regulation. The fee is associated with the costs incurred by the RWQCB in regulating the proposed discharge. It is not a penalty for improving groundwater quality.

Document: Order, Directive C1

Commentor: Nick Lagos, LFR Levine Fricke

Comment 8: The RWQCB proposes that concentrations of volatile organic compounds (VOCs) in the treated groundwater (effluent) shall be less than or equal to the practical quantitation limits (PQLs) for each chemical. The use of PQLs for discharge thresholds would be preferred to method detection limits (MDLs), since MDLs have a greater attendant uncertainty. However, a degree of analytical uncertainty remains even at the PQL. There may be instances where the PQLs are lower than any applicable WQO for the receiving groundwater. In these instances, the RWQCB should consider allowing the

treated groundwater effluent requirement to be less than applicable WQOs, or less than the PQL, whichever is higher.

Response: Use of the Water Quality Objective (WQO) may result in the degradation of receiving groundwater quality. For example, there would be a degradation of receiving groundwater quality if someone were to discharge water with a TDS of 200 ppm to an aquifer in a basin that has a WQO of 250 ppm, a PQL of 50 ppm, and receiving groundwater TDS value of 100 ppm. Under these circumstances, the discharge is more appropriately regulated under site specific WDRs rather than the proposed general WDRs. Additionally, California Water Code section 13263(b) does not require the RWQCB to authorize the use of the full waste assimilation capacities of receiving waters in prescribing WDRs.

Document: Order, Directive C2, C3

Commentor: Nick Lagos, LFR Levine Fricke

Comment 9: The RWQCB proposes to allow up to a 15 percent variation in the concentration of re-injected non-VOC chemical constituents, as compared to extracted (Item 2) or ambient groundwater (Item 3). While, in concept, this proposed limitation seems reasonable, it may cause a potential problem with regard to naturally-occurring chemical constituents that are affected by treatment. For example, the concentrations of dissolved oxygen and alkalinity characteristics of a treated water may be altered by more than 15 percent during an air stripping process, or a metals precipitation/settling/filtration process. We recommend that the RWQCB be allowed to grant specific exceptions to this general rule, particularly in cases where it would be expected that treatment may alter the concentration of naturally-occurring constituents in predictable ways.

Response: Site specific WDRs would be appropriate if a treatment system consistently alters a constituent level. Consistent exceedences of constituents ultimately make it difficult for the discharger to stay in compliance with the 12-month running average prescribed in the general WDRs.

Document: Order, Directive C2, C3

Commentor: David Felix, San Diego County Department Of Environmental Health; John Anderson, San Diego Regional Water Quality Control Board; Nick Lagos, LFR Levine Fricke

Comment 10: Discharge Specifications C.2 and C.3 allow the concentration of a constituent in the effluent water to exceed the receiving water concentration by 15 percent for any one sampling event. Is this exceedance allowance adequate to account for natural water quality variability in the aquifer and laboratory errors associated with sample analysis?

Response: The proposed WDRs require that the effluent water from the treatment system be the same or better quality than the receiving water. Realizing that natural spatial variability of water quality exists in an aquifer, and that laboratory analyses have associated errors, the WDRs allow constituent concentrations in the effluent to exceed the concentration in the receiving water by 15 percent for any one sampling event. Spatial variability of water quality in aquifers of the San Diego Region is not well known, but is not expected to vary greatly over short distances within the same hydrogeologic unit. If spatial variability exists at a cleanup site, a discharger may elect to monitor receiving water quality at more than one monitoring point to get a more representative average of receiving water quality. Based on sampling results of hydrocarbon analyses in monitoring reports submitted to the Regional Board, a 15 percent exceedence for laboratory error appears to be adequate for a discharger to comply with the WDRs. This relationship is expected for non-hydrocarbon constituents as well.

If a constituent in the effluent is concentrated due to the treatment process, site specific WDRs may be necessary.

Document: Order, Directive D1

Commentor: John Anderson, San Diego Regional Water Quality Control Board

Comment 11: Directive D1.

Aren't most of Attachment C prohibitions already in the order? Why so much duplication? This could be potentially confusing for the RP.

Response: Unnecessary duplication has been omitted from the tentative Order.

Document: Order, Directive D2

Commentor: David Felix, San Diego County Department Of Environmental Health

Comment 12: Engineers are licensed, not registered.

Response: Your suggested revision has been incorporated into the tentative Order.

Document: Order, Directive D3

Commentor: John Anderson, San Diego Regional Water Quality Control Board

Comment 13: Is this reference to Finding #9 correct? Finding 9 appears to talk about monitoring.

Response: Directive D3 is in reference to Finding 12. The text in the tentative Order has been corrected.

Document: Order, Directive D4

Commentor: John Anderson, San Diego Regional Water Quality Control Board

Comment 14: You may want to add "disposal" along with extraction and treatment permits from a local, State, or Federal entity for completeness. There may be some local permits that need to be acquired for disposal as well..

Response: Your suggestion has been incorporated into the tentative Order.

Document: Attachment A

Commentor: John Odermatt, San Diego Regional Water Quality Control Board

Comment 15: It would be wise to exclude the table from Appendix A because the fees associated with land disposal will change.

Response: The original Appendix A has been deleted from the tentative Order.

Document: Attachment B, Directive A9

Commentor: John Anderson, San Diego Regional Water Quality Control Board

Comment 16: What is the basis for and purpose of this sampling procedure?

Response: A "grab sample" is defined in EPA's NPDES Compliance Inspection Manual. This type of sample is appropriate for sampling water from a pipe as opposed to a groundwater well.

Document: Attachment B, Directive B2

Commentor: John Anderson, San Diego Regional Water Quality Control Board

Comment 17: MTBE is misspelled in the table. Also, are we unnecessarily limiting potential contaminants not specifically listed in the table?

Response: The spelling of MTBE has been corrected. The constituents in the list include all chemicals and water quality characteristics for which there are numerical objectives in the Basin Plan. The tentative Order can be amended to add new chemicals of concern if they emerge.

Document: Attachment B, Directive B3

Commentor: John Anderson, San Diego Regional Water Quality Control Board

Comment 18: With all the concern over chromium VI, I believe this table should be modified to include chrome speciation.

Response: The table has been revised to include both Chromium (total) and Chromium VI.

Document: Attachment C

Commentor: John Anderson, San Diego Regional Water Quality Control Board

Comment 19: First, there are many of these Prohibitions that don't apply to this WDR (3,4,5,10,11,12,14,15,16,17,18). Secondly, if we use Attachment C, couldn't this Attachment be referenced in the Order instead of duplicating some and referencing a bunch of others that don't apply. I think we should do one or the other in order to make it less complicated.

Response: Unnecessary duplication has been corrected. Although some Basin Plan prohibitions do not appear to apply to this order, they are all attached to every WDR order as a matter of business practice to ensure that the dischargers are aware of every possible obligation.

Document: Attachment D

Commentor: John Anderson, San Diego Regional Water Quality Control Board

Comment 20: Aren't most all of these already in the draft Order? Why duplicate and complicate the Order with attachments that duplicate provisions and prohibitions already in the Order in the Order?

Response: Unnecessary duplication has been corrected.

Document: Attachment D, Directive 19

Commentor: John Anderson, San Diego Regional Water Quality Control Board

Comment 21: Page 9, No. 5 of the draft Order is not consistent with No. 19. b) of Attachment D. They do not read the same. Also, both "Regional Board" and "RWQCB" are used in No. 5 of the Order. We should use one or the other consistently throughout the document.

Response: This has been corrected by incorporating Item 19 (Signatory Requirement) from the Standard Provisions Applicable to WDR into the tentative Order. "RWQCB" has been replaced with "Regional Board."